

AMENDMENTS TO THE SPECIFICATION

Please replace the last paragraph on page 1 with the following amended paragraph:

With respect to an improvement of a power generation capacity, as described in JP H11-164505, an improved construction in which each of the electrical conductors is separately disposed ~~in~~ with a space interval from one another and a thickness in insulating layers in a cross-over portion of electric conductors is set smaller than that in a slot-in portion located in slots, has been proposed in order to improve cooling capabilities in the cross-over portion of the conductors and obtain higher output and efficiency of the generator.

Please replace the last paragraph on page 2 (bridging page 3) with the following amended paragraph:

The present invention is characterized in that an ac generator for a vehicle is provided with a rotor having field windings, a stator including a stator core placed facing to the rotor and an electrical conductor wound on the stator core, and a housing supporting the rotor and the stator, wherein the stator core is constituted by a laminated core having a plurality of slots each extending to an axial direction, the electrical conductor is comprised of a slot-in portions located in the slots and a cross-over portion connecting the slot-in portions with each other at the shaft end side of the stator core, wherein the shape of conductors in the slot-in portions located in the slots is substantially rectangular in its cross section and the shape of conductors in the cross-over portion is substantially circular in its cross section, and at least a longer side out of the conductors in the slot-in portions located in the slots is smaller in thickness of their insulation layers than that of insulation layers in the cross-over portions.

Please replace the last paragraph on page 5 (bridging page 6) with the following amended paragraph:

An ac generator for a vehicle of a first embodiment of the invention will be described referring to Fig. 1. As shown in Fig. 1, the ac generator for a vehicle 20 is provided with a housing 23 comprising of a front bracket 21 and a rear bracket 22 each of which is constructed in a bowl-shape and made of aluminum of good heat conductance, a shaft 26 installed in the housing 23 and on one end of which a pulley 24 is fixed, a Randell type rotor 27 secured on the shaft 26, a fan 25 secured on both ends of the axis of the rotor 27, a stator 40 fixed on the housing 23 so as to surround the rotor 27, a slip-ring 28 fixed on the other end of the shaft 26 to serve a current to the rotor 27, a pair of brushes 29 sliding over the surface of the slip-ring 28, a brush holder 30 for storing the brushes 29, a rectifier 31 electrically connected to the stator 40 for rectifying an alternative current generated by the stator 40 into a direct current, and a regulator 32 fixedly inserted to the brush holder 30 for regulating a magnitude of the ac voltage generated by the stator 40. The rotor 27 is provided with a field winding 33 through which the current flows to generate magnetic flux and a pair of pole cores 34, 35 provided so as to surround the field winding 33 to form a pole by its magnetic flux. The pair of pole cores 34, 35 is made of iron and is provided with claw-type poles 34a, 35a each of which has substantially a trapezoidal shape in the most external configuration thereof and is protruded from the edge of its periphery on circumferentially equiangular pitch. The pair of pole cores 34, 35 is fixed in opposed position on the shaft 26 so that each of the claw-type poles 34a, 35a is geared towards each other. The stator 40 is constituted with a cylindrical stator core 41 formed by laminated magnetic steel plates and a stator winding 42 wound on the stator core 41, and is firmly sandwiched between the front bracket 21 and the rear bracket 22 so as to form an uniform air gap between the outer peripheral surface of the claw-type poles 34a, 35a and the inner peripheral surface of the stator

core 41. The front bracket 21 has an air charging hole 36 and an air discharging hole 37 and the rear bracket 22 also has an air charging hole 38 and an air discharging hole 39.

Please replace the last paragraph on page 11 with the following amended paragraph:

According to the second preferred embodiment, as shown in Fig. 6, before the slot-in portions 44a of the winding unit is installed in the slot 41c, the slot-in portions 44a of the conductor 44 is molded to substantially rectangular shape in cross section having a shorter side thereof in the radial direction and a longer side thereof in the circumferential direction of the generator, and are drawn up circumferentially and closely to each other in two lines ~~closely each other~~. In Fig. 6, reference numeral 47 represents insulating resins impregnated in the slot 41c to mold the winding unit.

Please replace the first paragraph on page 12 with the following amended paragraph:

The above mentioned construction enables the slot-in portions 44a of the conductor 44 to be installed in the slot 41c with no space between each other circumferentially.

Please replace the second to last paragraph on page 12 with the following amended paragraph:

According to the third preferred embodiment, as shown in Fig. 7, before the slot-in portions 44a of the winding unit is installed in the slot 41c, the slot-in portions 44a of the conductor 44 is molded to substantially rectangular shape in cross section having a longer side thereof in the radial direction of the generator and a shorter side thereof in the circumferential direction, and are drawn up in the radial direction in one lines closely to each other.

Please replace the last paragraph on page 12 with the following amended paragraph:

The above mentioned construction enables the slot-in portions 44a of the conductor 44 to be installed in the slot 41c with no space between each other circumferentially.

Please replace the second paragraph on page 16 with the following amended paragraph:

As a result, two individual wires 42A, 42B are fit in the core 41A as shown in Fig. 10(b), wherein the straight portion 44a of the individual wires is stored in the slots 41c so that 4 wires are stacked in the radial direction in a state insulated against the core 41A by the insulator 65. Then, the core 41A is rounded to butt its end surfaces to each other and is welded to connect them, obtaining a cylindrical core 41, only part of it being shown in Fig. 10(c). Rounding the core 41A makes the shape of slots 41c substantially rectangular in cross section and causes the opening 41c to be smaller than the length of the straight portion 44a in the direction of the slots width. Finally, the stator winding group is completed by connecting the end portions of each individual wire based on the known delta (Δ) and star (Y) connection.